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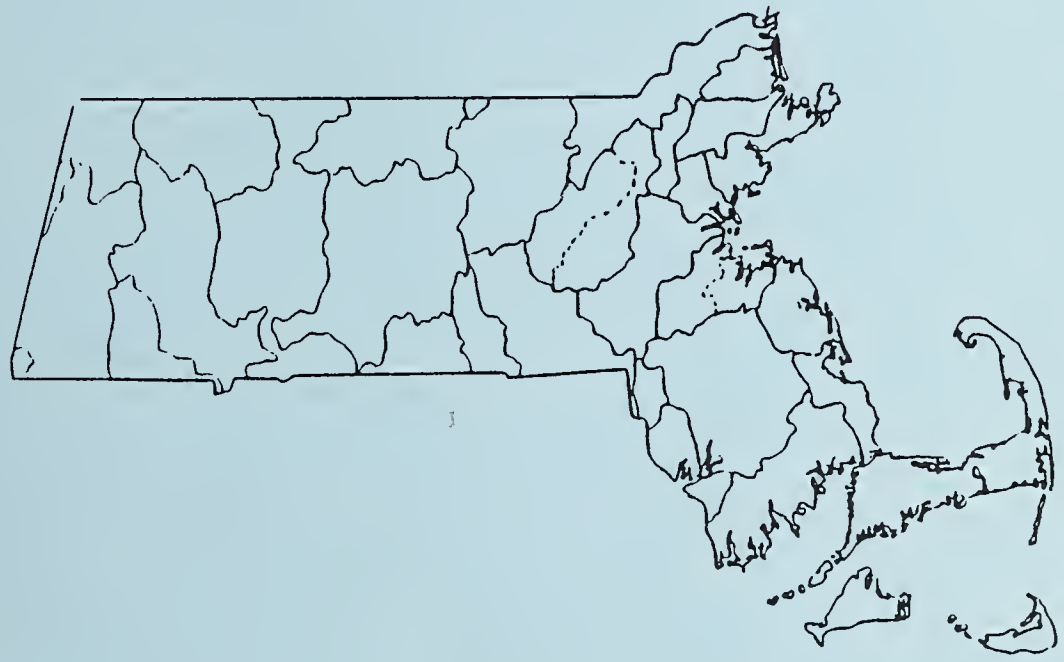
Massachusetts

Private Water Supply Policy Statement

A supplement document to the Massachusetts Water Supply Policy Statement

(1984 Update)



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February 1987

Massachusetts Private Water Supply Policy Statement

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INTRODUCTION

In August of 1984, the Water Resources Commission adopted the Massachusetts Water Supply Policy Statement - 1984 Update. At that time the Commission requested that the Water Supply Task Force continue its efforts by drafting policies for private water supplies.

The Task Force, comprised of representatives from the five departments within the Executive Office of Environmental Affairs, the Department of Public Health and the Department of Public Works, met seven times beginning on August 28, 1984. Several drafts were written and circulated among the participating agencies.

The Water Resources Commission's designees and public members reviewed drafts on April 22 and June 10, 1985. The final draft received extensive public review. At the Commission's request, substantial changes were made, particularly in the method of presentation. In October of 1986 they recommended that an executive summary of the policy document be prepared for adoption. On January 12, 1987 the Commission adopted the executive summary as the Massachusetts Private Water Supply Policy Statement.

Both the executive summary and a background document are presented as a supplement to the Massachusetts Water Supply Policy Statement - 1984 Update.

Massachusetts Private Water Supply Policy Statement

EXECUTIVE SUMMARY

Definition: "Private water supply" refers to any potable "non-public" water supply. "Non-public" means any water supply system which serves less than 15 connections or less than 25 individuals.

Background

Approximately 400,000 or 7% of the State's 1985 population rely on private wells for their water supply. This includes almost all of the inhabitants of 61 of the Commonwealth's 351 communities. An estimated 10,000 private wells are drilled each year. Some of these private supplies are experiencing contamination problems due to a variety of causes including landfill leachate, road salt storage and runoff, pesticide applications, chemical discharges, septic system drainage, and natural substances. Without a strong protection program, the contamination of private wells is likely to increase.

The state wishes to encourage and direct state and local programs and practices for private water supplies to be consistent with the state's existing public water supply efforts by appending an additional policy statement to the Massachusetts Water Supply Policy Statement - 1984 Update.

Statutory Authority

The State has the following responsibilities/authorities through the Department of Environmental Quality Engineering (DEQE) and the Department of Public Health (DPH), and the Department of Environmental Management (DEM) related to protecting private water supplies.

- DEQE is given the "general oversight and care" of all waters used by any municipality, institution or person as a source of water supply and "to ensure the delivery of a fit and pure water supply to all consumers" (M.G.L. Chapter 111, section 159-160).

- DEQE may require a municipality or a person "maintaining a a water supply" to provide and operate treatment facilities "necessary to ensure the delivery of safe water to all consumers" (M.G.L. Chapter 111, section 5G).

- DEQE is directed to adopt a state environmental code to deal with "matters affecting the environment and the well-being of the public of the Commonwealth" (M.G.L. Chapter 21A, section 13).

- DPH is directed to adopt a state sanitary code for matters affecting the health and well-being of the public including "standards of fitness for human habitation". DPH has promulgated regulations requiring that every place of habitation be provided with a potable water supply - either a public system or a private well, approved by the Board of Health (M.G.L. Chapter 111, section 127A).

- DEM administers the registration of well drillers and the maintenance of logs of wells drilled in Massachusetts (M.G.L. Chapter 21, section 16).

Statutory Authority: Local

- Cities and towns must require a supply of water, either from a public water system or from a private well located on the land, prior to issuing a building permit (M.G.L. Chapter 111, section 54).

- Local Boards of Health may order the owner to discontinue the use of a supply and to provide a safe and adequate supply if the available supply of drinking water in any place of habitation is so unsafe or inadequate as to constitute a nuisance (M.G.L. Chapter 111, sections 122-122A).

- Local Boards of Health can promulgate reasonable health regulations such as private well standards (M.G.L. Chapter 111, section 31).

Policies

The private water supply policies focus on four areas:

1. Planning and protection - expand the state's current efforts in coordinating state water programs, mapping aquifers, strengthening regulatory programs, undertaking enforcement actions, accelerating research projects, and providing limited technical assistance.

2. Standards and guidelines - expand state standards, guidelines and requirements to apply to the development and maintenance of private wells.

3. Contamination - focus on prevention rather than on clean-up as the more cost-effective and environmentally sound approach. The local Board of Health will serve as the primary contact point. In the event that a private water supply does become contaminated, state resources may be used as a back-up to user and local capabilities. Direct state financial assistance will be utilized only as a last resort in limited cases where public health and safety are at risk, where risk is severe, and where other resources are insufficient.

4. Testing and monitoring - promote minimum standards or guidelines which would be enforced by local Boards of Health, with the basic responsibility for testing and monitoring resting with the owner. As part of the State's research efforts, state agencies may choose to test selected private wells in order to secure data required by the research projects.

Summary

The private water supply policies parallel the public water supply policies and attempt to strengthen local capabilities to protect and manage the resource. The primary responsibility for the adequacy and safety of private water supplies remains with the owner, users, and with local agencies. However, the State will augment local management resources under certain conditions. The State focus is on guiding local actions through mechanisms including minimum statewide guidelines, standards and regulations to be implemented at the local level and on providing limited technical and financial assistance and research.

BACKGROUND DOCUMENT

This document expands upon the executive summary and was developed by the Water Resources Commission's Water Supply Task Force. While the Executive Summary provides a succinct version of the policies, background information and statutory references, this document provides a philosophical overview and a more thorough examination of the policies and their implications.

Philosophical Overview

Consistent with the state's public water supply policies, this statement on private water supplies reflects the philosophy that:

> Water is a valuable resource of the Commonwealth, and, therefore, the state responsibility is to establish water laws and policies for provision of multiple uses of water, for protection of the quality of water and for the ensurance of the availability of water so as to meet the fundamental necessities of the citizens.

The state's overall goal is to ensure that both public and private water supplies are available in sufficient quantity and quality to meet Massachusetts current and future needs and to accomodate both consumptive and non-consumptive needs. Primary emphasis is on protection of existing and future water supplies rather than on clean-up after a source becomes contaminated.

There is neither a presumption that all private supplies must be maintained nor an assumption or desire that all private supplies should be replaced, over time, with public water supplies. Rather, each case will be decided on its own merits based on the most cost-effective and environmentally sound considerations.

Private wells are in use throughout the state for domestic, commercial and industrial supply. Approximately 400,000 people or 7% of the state's 1985 population rely on private wells for their water supply. Private wells provide water to almost all the inhabitants of 61 of the Commonwealth's 351 communities. Some of these towns are experiencing water contamination problems due to a variety of causes including landfill leachate, road salt run-off, pesticide applications, chemical discharges, toxic waste disposal, and natural substances. Lacking a strong protection program the number of incidents of contamination of private wells is likely to increase over time. However, the total number of people affected by these occurrences is not expected to approach the number of people adversely impacted from contamination of public water supplies.

While the state regards regulation of water quality of private water supplies as a local responsibility, it has begun and will continue to develop and implement state policies through programs and actions which support local capabilities to ensure sound water supply management. The level of state commitment is expected to increase, although it is projected to remain less resource-intensive than the efforts focused on the development, management and protection of public water supplies. State resources, especially financial assistance, will be provided in limited instances as a back-up and last resort to actions taken by users and municipalities.

Implications of the Private Water Supply Policies

The timing and intensity of implementation, to a large degree, depends on the total resources available to state and local governments for water supply purposes. Priority, in general, will be given to public rather than private water supply development, management, and protection. Resources are limited - available personnel, equipment, and dollars cannot meet existing public water supply needs. Therefore, it will be extremely difficult without additional resources to cover the areas affecting private water supplies.

Because private wells are large in number, geographically widely distributed, located in rural, suburban, and urban communities, and are not now fully regulated, they pose a more diverse management concern for state and local officials than do public systems.

The thrust of the state's efforts is to manage and protect the natural resource - the aquifers. Since aquifers cut across political boundaries, emphasis will be given to resource rather than politically-based programs and to integration of state programs.

The state's orientation is both to strengthen local capability as well as provide leadership and ensure consistency. Some of the state's existing programs can be utilized to deal with existing and future private water supplies. For example, the state handbook on road salt practices and the open space acquisition program can be used to protect both public and private water supplies.

Other state programs may be expanded to cover some private water supplies. For example, the state's clean-up of contaminated water supply programs was amended in 1982 to permit payment of state funds for clean-up of a non-public water supply serving at least 25 residential units.

Additional programs and resources will need to be forthcoming if the private water supply policies are to be successfully implemented. At the state level, training, educational and technical assistance efforts aimed at strengthening the capability of boards of health will have to be developed. Technical people (especially in the regional offices) will be needed to create standards and guidelines, assess risks, and review and evaluate options. At the local level (especially in rural communities), professionals are needed to assist the boards of health and other local bodies in permitting new wells, monitoring existing and future wells, and handling contamination problems as they arise.

The implications for the private user are similar - a higher degree of awareness, responsibility, and financial commitment are necessary so that the homeowner will have a safe and adequate source of drinking water.

Private Water Supply Policy Statement - Detailed Discussion

The state goal in adopting this policy statement on private water supplies is to encourage and direct state and local programs and practices for private water supplies to be consistent with the state's existing public water supply efforts.

As with public water supplies, the state's primary role and responsibility is to encourage and strengthen local capabilities so that private water quality and quantity are protected and maintained when and where a water supply exists or is to be developed.

The primary responsibility for the adequacy and safety of private water supplies remain with the users and with local officials. However, the state should augment local management resources under certain conditions. The state's focus should be on guiding local actions through the appropriate development and implementation of minimum statewide regulations, guidelines and standards and the provision of limited technical assistance and research. The private water supply policies focus on four areas, as outlined in the executive summary. A detailed discussion of each of these areas follows.

1. Water Supply Planning and Protection

A. It is the policy of the state to coordinate and extend state water supply planning and protection efforts to the planning and protection of private water supplies. The state should continue to direct state resources to minimize and avoid water supply contamination by:

- coordinating state water programs
- undertaking enforcement actions
- adopting and implementing regulations such as those for the siting of facilities for the storage and disposal of potentially contaminating materials
- assessing pesticides product registrations based on their potential impacts on potable water.

B. The state should expand overall state water resources planning and protection efforts in order to guide land-use and water supply decisions which affect private water supplies, should accelerate research on protecive measures/best management practices, and should seek additional designations of sole source aquifers (as defined in the federal Clean Water Act).

C. The state should assist with local private water supply planning and protection by making available technical advice to local officials on such matters as siting potentially polluting activities.

D. In order to implement the results of policy and the planning efforts, training and technical assistance programs should be expanded, aimed at educating local officials and the public on such matters as public health standards, potential sources of contamination (e.g. certain septic system cleaners, failing water disposal systems, road salt storage and application, and misapplication of pesticides), and the connection between local land use decisions on the quality and quantity of private water supplies.

2. Water Quality Standards and Guidelines

A. In light of the growing impact of contamination on private water supplies, the state's policy is to ensure that appropriate standards, guidelines and requirements for the quality of private water supplies are in place or developed. The responsible state agencies should evaluate the methods for extending such measures to the development and maintenance of private water supplies. This will include setting minimum standards for new private well development, for periodic testing, and for developing new water quality standards or guidelines for substances not now subject to drinking water standards.

B. The state should initiate research to develop baseline information necessary to evaluate state actions on areawide and statewide problems. The state should work with local agencies in developing the scope of such research and in interpreting test results.

3. Contamination Problems and Responses

A. The thrust of the state's efforts is on prevention of contamination rather than or treatment of water supplies. In the event that a private water supply does become contaminated, then state resources are used as a back-up to user and local capabilities. Where appropriate, the state helps the homeowner and/or the local agencies, identify the problem, the source of the problem, and alternative solutions to the problem by review and recommendations on the local approach and proposed solutions.

The state should further identify, develop and coordinate its programs in order to educate the public and local agencies on how to handle a contamination problem and how to minimize risks in the future. Local government should serve as the primary contact point, through boards of health, for information and interpretation of standards and for decisions on correction of water quality problems. State agencies should develop approaches and methods for providing legal and technical assistance in accordance with the provisions of state and federal environmental laws and regulations. State resources should be available to help local officials adopt and implement strategies for providing alternative supplies, for undertaking remedial actions, and for holding polluters responsible for the costs of necessary measures.

(1) Direct state financial assistance should be utilized only as a last resort in limited cases where public health and safety are at risk, where that risk is severe, and where other resources are insufficient.

(2) State practices on funding for private supply problems should be coordinated in order to ensure that all technical and cost-effective options are pursued and all other sources of contribution are approached before state assistance is relied upon.

When state financial assistance is provided, local officials should be encouraged and assisted to evaluate a range of alternatives including treatment and restoration, containment and abandonment of the sources of supply, and development of new private supplies. Preference is given to treatment and restoration, where feasible and cost-effective, rather than abandonment and containment.

4. Testing and Monitoring

A. The basic responsibility for the testing and monitoring of private water supplies for public health purposes rests with the homeowner. Should minimum state requirements be set for the chemical analysis at the time of well installation and at other intervals, the primary burden for such testing should be on the homebuilder and the homeowner, under the supervision of local agencies. Any minimum requirements for local supervision of testing should also encourage local data collection in order to supplement state data on water resources. The state should provide technical assistance to local agencies on standard procedures, formats for data collection and storage so that this data can be correlated with state data, where to get tests done, the reliability of the tester, what to test for, and what the results mean in terms of public health.

B. Testing of private wells should be required under certain circumstances, such as when contamination is evident in nearby water supplies, when adjacent land uses pose high risks for contamination, and when a type of contaminant has been discovered which is likely to show up in another geographical location.

C. In instances of emergency or widespread private water supply contamination, the state is often called upon to assist directly with the sampling and testing of water. The state's policy is to ensure first that sufficient laboratory capacity is available and certified in and out of the state so that private water samples can be tested with reliable results. If inadequate, the state then should make its resources, through boards of health, for sampling and testing available in cases where public health and safety are at risk, where the risk is severe, and where other resources are insufficient.

D. As part of the state's research efforts, state agencies may choose to test private wells in order to generate the necessary data. The selection of wells to test ought to be limited to those required by the scope of the research project(s).